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SOURCE Documentary as indicated. (Information specifically requested.)

RECENTLY PUBLISHED RESEARCH OF THE
CHEMICAL INSTITUTE, URAL AFFILIATE,
ACADEMY OF SCIENCES USSR

"Polarographic Determination of Cobalt in the Presence of Nickel: Catalytic Evolution of Hydrogen in the Presence of Cobalt Complexes with Dimethylglyoxime," A. G. Stronberg, A. I. Zelyanskaya, Chem Inst, Ural Affiliate Acad Sci USSR, Sverdlovsk

"Zhur Obshch Khim" Vol 15, 1945, pp 303-18

A new method for polarographic determination of Co was developed based on the formation of the insoluble complex of the interfering Ni with dimethylglyoxime, while the corresponding Co complex remains in solution. The increased wave height in the presence of dimethylglyoxime is probably due to the catalytic evolution of H₂. It was shown that rapid separation of Fe without coprecipitation of Co is possible by the use of (NH₄)₂CO₃, while Cu can be removed by separation on an Fe plate.

"Application of the Maxwell-Boltzmann Distribution Law to Colloid Chemistry," S. G. Mokrushin, Chem Inst, Ural Affiliate, Acad Sci USSR, Sverdlovsk

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"Zhur Obshch Khim" Vol 15, 1945, pp 259-68

The Maxwell-Boltzmann equation can be used for the deduction of the basic equations of colloid chemistry, i.e., Perrin sedimentation rate, Svedberg ultracentrifugal sedimentation and diffusion laws, Gibbs' adsorption equation, Langmuir and Freundlich adsorption equations, Kelvin's vapor-pressure expression, Taube rule, etc.

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